## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

## Listing of Claims:

- 1. (previously presented) An LSI semiconductor device comprising:
  - a plurality of processing elements; and
- a single switcher that connects each of the plural processing elements to each other,

wherein each of the plural processing elements includes a network interface and is connected to the single switcher via the network interface,

wherein the plural processing elements are located at a plurality of sides of the single switcher,

wherein one of the plural processing elements and the single switcher are connected by peer-to-peer connection via at least one transmission line, and

wherein a connection path between said plural processors forms a system LSI.

- 2. (canceled)
- 3. (previously presented) The semiconductor device of claim 1, wherein the switcher is located at the center position of the semiconductor device.

- 4. (previously presented) The semiconductor device of claim 1, wherein the plural processing elements and the single switcher are implemented in a single semiconductor chip to form a chip LSI.
- 5. (previously presented) The semiconductor device of claim 1, wherein the plural processing elements and the single switcher are implemented in a single package.
  - 6. (canceled)
- 7. (previously presented) The semiconductor device of claim 1, wherein each of the plural processing elements has a function of the same hierarchical level.
- 8. (previously presented) The semiconductor device of claim 1, wherein at least one of the plural processing elements and the single switcher are located in a space where light is confined, and each of the at least one of the plural processing elements and the single switcher has a light emitting element and a light receiving element, wherein an optical communication is performed between the at least one of the plural processing elements and the single switcher.
- 9. (previously presented) The semiconductor device of claim 4 further comprising:
- a plurality of semiconductor chips each of which includes plural processing elements and a single switcher; and

at least one inter-switcher which connects the semiconductor chips to each other.

- 10. (canceled)
- 11. (previously presented) The semiconductor device of claim 9, wherein the inter-switcher is located in one of the plural semiconductor chips, and the plural semiconductor chips are implemented on a plurality of stacked packages.
- 12. (previously presented) The semiconductor device of claim 9, wherein each switcher of the plural semiconductor chips and the inter-switcher is structured and arranged to have a circuit switching function.
- 13. (previously presented) The semiconductor device of claim 1, wherein each of the plural processing elements are only connected to the single switcher, through each respective network interface.
- 14. (previously presented) An LSI semiconductor device comprising:
- a plurality of LSI peripheral input/output processing elements;
  - a core processor; and
- a single LSI switcher that connects each of the plural peripheral processing elements and the core processor to each other,

Application No. 09/939,672 Reply to Office Action of March 25, 2004 Docket No. 8040-1016

wherein each of the plural peripheral processing elements and the core processor includes a network interface and are connected to the single switcher via a respective network interface,

wherein the plural processing elements are located around the single switcher, and

wherein one of the plural processing elements and the single switcher are connected by peer-to-peer connection via at least one transmission line.

- 15. (canceled)
- 16. (previously presented) The semiconductor device of claim 8, wherein the light is confined by a sealing resin.
  - 17-18. (canceled)

## AMENDMENTS TO THE DRAWINGS:

Please add new Figure 9. Figure 9 shows one of the processing elements and the switcher connected by peer-to-peer connection via at least one transmission line and shows at least one of the processing elements and the switcher communicating by optical communication.